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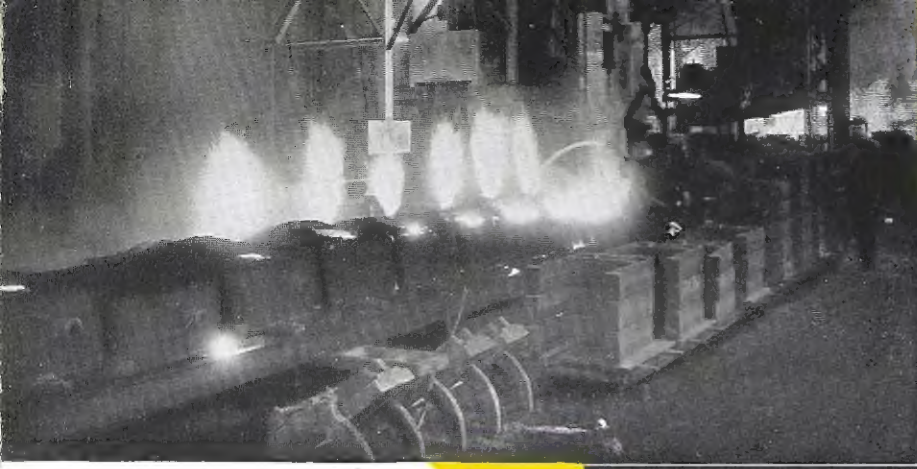
IDEAL BOILER

... THE UNIVERSAL BOILER



for all Fuels -
Automatic or Hand Firing

AMERICAN RADIATOR COMPANY

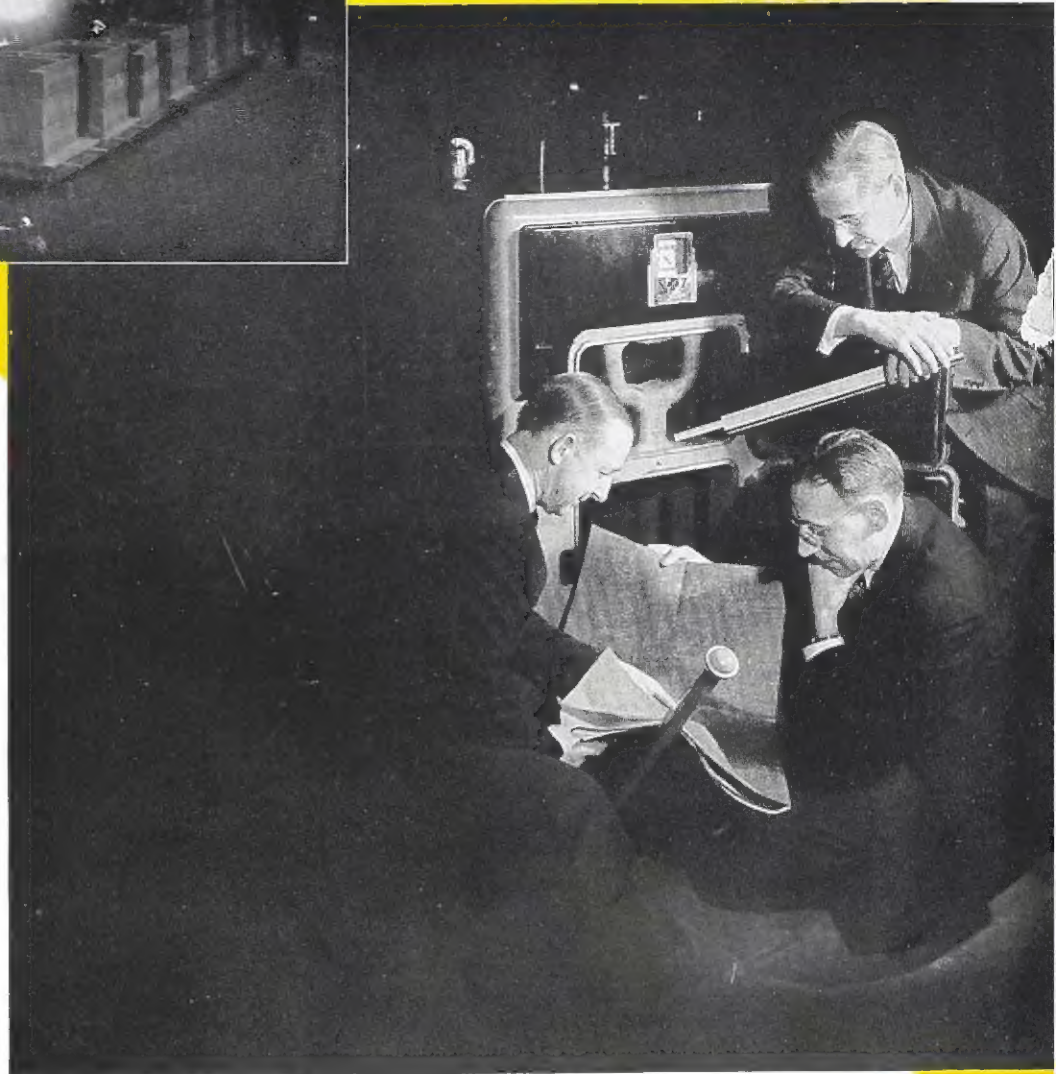


LEFT: Scene in one of the foundries of the biggest boiler plant in the world—American Radiator's Bond Plant, Buffalo—as molds containing castings for the No. 7 Ideal Boiler move down the conveyor line.

LUCKY FAMILY

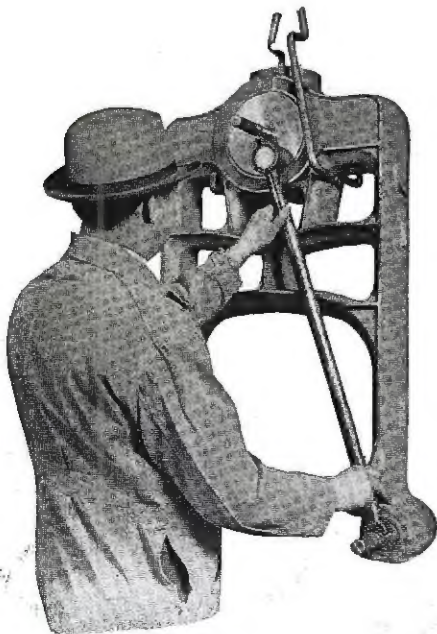
—that's building, buying or modernizing this year. Because the No. 7 Ideal Boiler is ready. It's fresh from the world's most famous heating laboratories—American Radiator laboratories—and embodies features no boiler has ever offered before.

Coal, Oil, Stoker, Gas... This is the new UNIVERSAL boiler—perfectly adapted to your use WHETHER YOU BURN COAL, OIL OR GAS, WHETHER YOU PREFER HAND-FIRING OR AUTOMATIC HEAT, WHETHER YOU LIKE A WARM WATER HEATING SYSTEM, STEAM OR VAPOR. It gives you convenience you've never known, keeps you warmer and more comfortable, yet actually cuts down your fuel bills. New beauty of design. New advantages all its own. New, surprising economy. No. 7 is modern—superior—exclusive—inside and out. And it costs little if any more than boilers without all these special features.



The Laboratory said "We're Satisfied!"

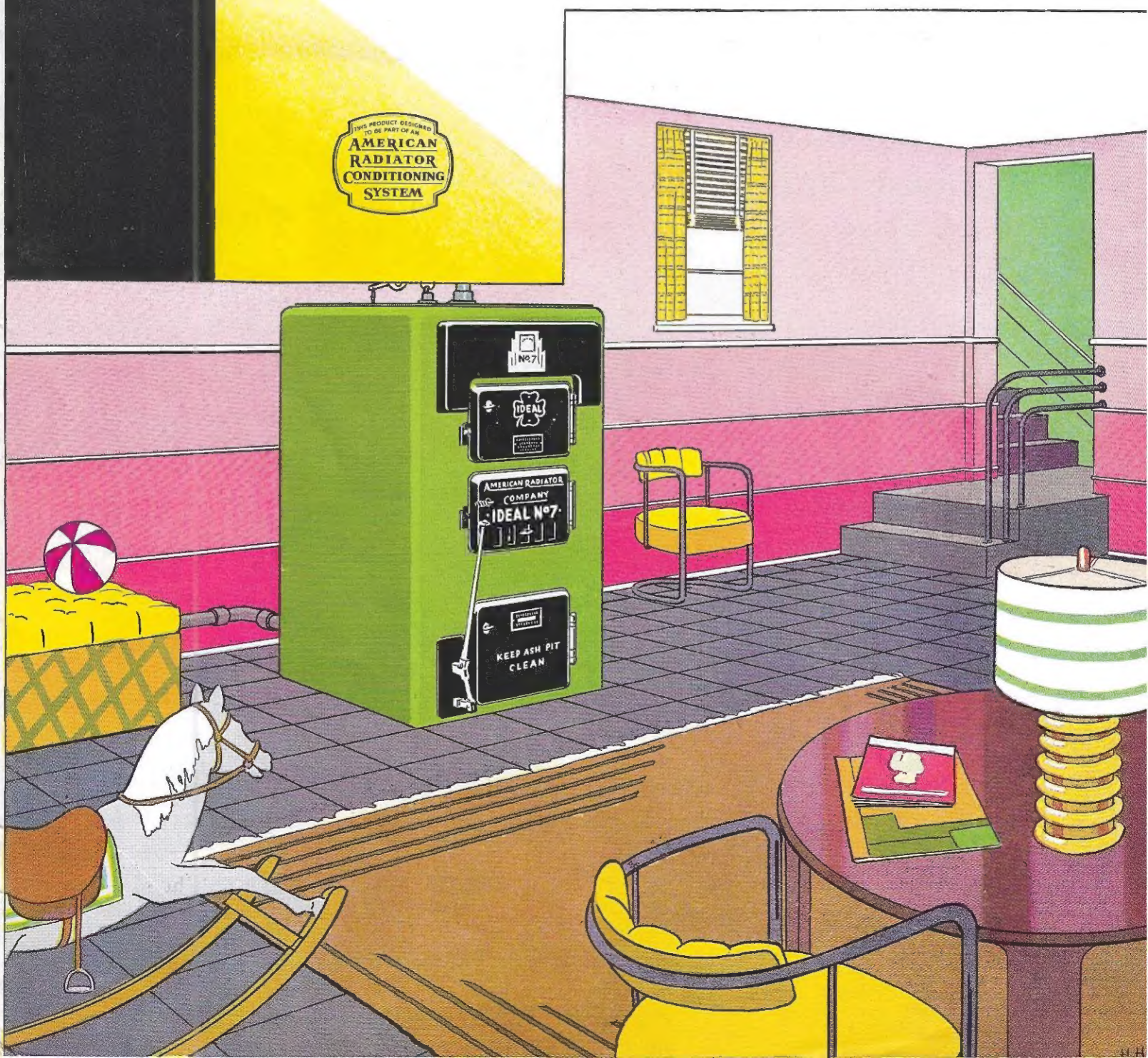
Technicians in American Radiator's laboratories have genius in their fingertips, infinite capacity for patience and a quiet pride in always producing the best. Vast preliminary study preceded the birth of the new No. 7 Ideal Boiler. Design after design was made in search of perfection. Then months and months of tests on the boiler itself. Gruelling tests in the laboratory, trying tests in the field, that demanded far more than actual average performance. When the laboratory said, "We're satisfied," we knew the boiler was the best that could be offered.



LEFT: Every No. 7 Boiler must meet standard dimensions within 1/1000 of an inch! Here an inspector gauges the accuracy of a section. Such precision through every stage of production explains the perfection you may expect.

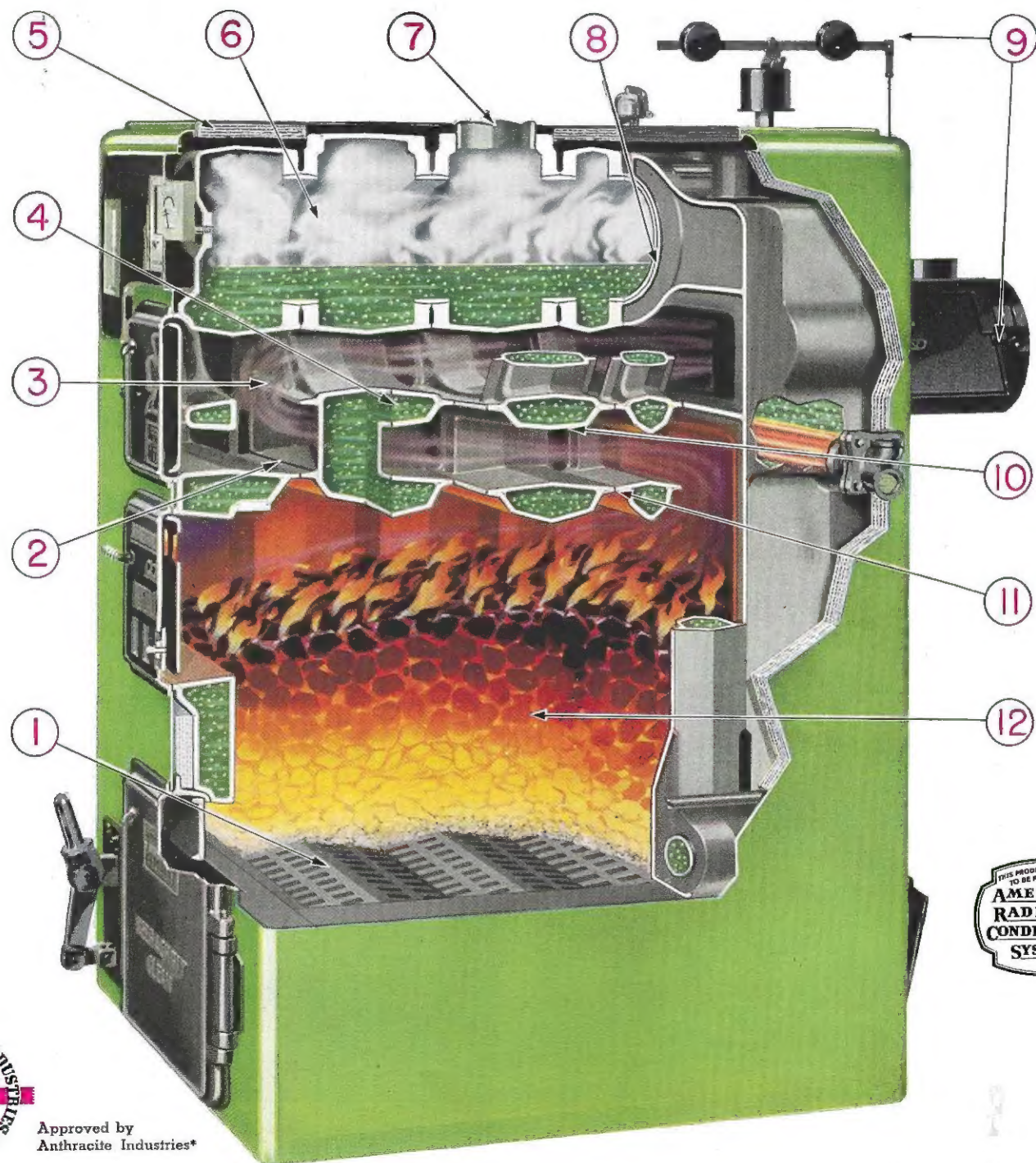
No. 7...And no Other Boiler...GIVES YOU ALL THESE FEATURES

American Radiator believes people who burn coal should enjoy an ideal combination of cleanliness, efficiency, economy and smartness! ● We've introduced a new coal-burning boiler for small and average homes—Ideal No. 7—DESIGNED IN THIS MODERN SPIRIT. ● But we've also included in this boiler features that make it UNIVERSAL—as ideal for oil or gas as for coal, as efficient when stoker-fired as when hand-fired. ● Look at No. 7! It's new from its shining green down-to-the-floor jacket to provision for year-round hot water. And it's up to the minute because it gives what everybody wants today—luxury at low cost...the finest heat in the world, filling every room like the warmth of sunshine itself. No. 7 is destined to be a great American boiler.



EFFICIENCY

The No. 7 has been proved by hundreds of tests to have a very high "efficiency" compared with other boilers of similar type. High "efficiency" is a term experts use. To you, the home-owner, it means extreme FUEL ECONOMY—added to swift, completely trouble-free heat—whether you burn coal, coke, oil or gas.



Approved by
Anthracite Industries*

* Anthracite Industries, Inc. is organized to make available the results of all the research of the anthracite industry. Its seal of approval on heating equipment indicates this equipment has performed satisfactorily in a series of impartial and exhaustive tests using Pennsylvania Anthracite.

m e a n s E C O N O M Y

WHERE THE ECONOMY COMES IN—

Technical-wise

1. Scientifically proportioned grate bars assure efficient removal of ash without loss of coal. The large area of these grates aids a quick response to heating demands. Grate bars have special trussed construction and withstand great strain and abuse without warping or breaking.
2. Permanently tight iron-to-iron fit of all sections and flue, instead of putty joints, and air tight doors, prevent wasteful in-leakage of air.
3. Gas passages are newly designed. All the hot gases come in contact with heating surface, so no useful heat is wasted. Fire and clean-out doors have cast iron baffle linings.
4. The relatively small amount of water to be treated in the boiler water ways assures a quick steaming that gives the No. 7 boiler a quicker pickup than any of the nine popular-make boilers tested at our laboratories.
5. Heavy corrugated air-cell asbestos insulation on top, sides, front, rear, completely covered by tight-fitting steel jacket, prevents heat loss. The jacket reaches to the floor with smooth unbroken lines and is amply reinforced so it will not bend out of shape. Green baked-on enamel will not chip or crack.
6. Dry steam for efficient, trouble-free and noiseless heating, because of broad steam liberating surface of boiler water and large space for steam to collect.
7. Low installation cost, because only one piping outlet instead of two is required in most cases.
8. Other coal boilers do not have this large connection between sections that permits water to circulate freely and promotes equal heat transfer from all parts of the boiler.
9. The "pin point" balance of the draft and check doors assures accurate response to the sensitive Arco Automatic Regulator and perfect control of the fire, without needless waste of fuel.
10. Heating surface so designed that maximum heat absorption is assured.
11. Sections designed to eliminate crevices which catch soot and lower boiler's efficiency.
12. Scientifically designed combustion chamber promotes clean complete combustion of all kinds of fuel.



The man who installs a No. 7 Boiler will laugh at heating cares! No. 7 will be the best investment you ever made—an investment in life-long comfort and peace of mind.



No. 7 is a HIGH ECONOMY boiler. Happy outings and family treats can be paid for with the money you will save on fuel bills!

THE BOILER THAT HAS EVERYTHING!

1. Beautiful Chrome Green Cabinet
2. 10 Big Convenience Advantages
3. Unusually High Fuel Economy
4. Flawless Heating Performance
5. Provision for All-Year Hot Water Service
6. Ideal for Oil Burner, Stoker or Hand-Firing or Gas Burner.
7. Space for all Automatic Controls

ACCENT ON CONVENIENCE



Quick heating means early morning comfort.



The gauge is easy to read and always truthful.



New freedom for you! The fire will take care of itself for hours.

● Study the No. 7...ONLY NO. 7 gives this COMPLETE array of convenience features, every one designed to cut the work in half.

● Easy to keep the bright finish clean and glossy! The enamel is BAKED on the steel jacket—smooth as satin and will not chip.

● New freedom for you! Newly designed firepot and grates hold all the fuel fire will need for hours.

● You'll save many a step. The sensitive regulator automatically operates air intake as well as cold air check. A steel connecting rod is used—not a chain that may slip and kink.

● Quicker heat than you've ever known because of the relatively small water content of the boiler and because the grates are larger than in any other boiler of corresponding size.

● You can put in coal without knocking the shovel against the door frame and spilling. The doors are unusually big—a great help in taking out ashes, too, and reaching way in to clean.

● This ashpit can be emptied less often because it holds more ashes.

● Gauge glass recessed and framed in shining chromium—an exclusive feature. Bigger, better looking. And always truthful because the water line stays even through the boiler.

● Door handle of special design stays cool even with a hot fire.

● No backaches! Even the shaker has a new long handle that operates at a touch, and the newly designed, wide grates—exclusive with No. 7—are extra easy to shake and dump.

● Clean, perfect iron-to-iron joints. Made marble-smooth and permanently leakproof on special grinding machines.



As easy to keep clean as a piece of furniture!

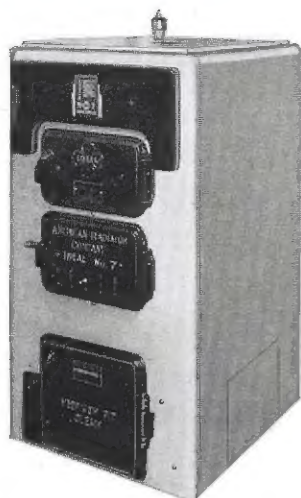


Automatic regulation—more sensitive than human control.

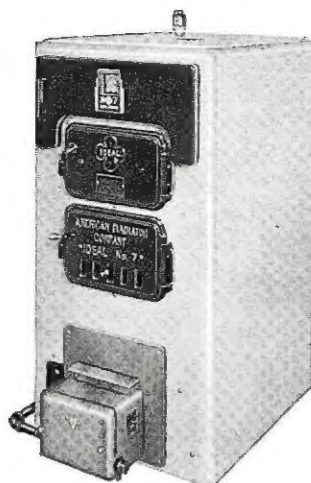


Finger-tip control of the shaker.

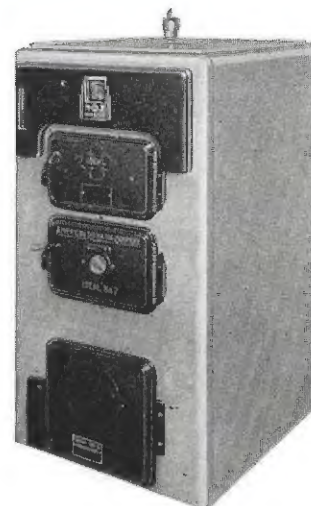
WITH COAL · STOKER · GAS · OIL



No. 7 BOILER FOR AUTOMATIC COAL FIRING



No. 7 BOILER WITH GAS CONVERSION BURNER



No. 7 BOILER FOR OIL FIRING

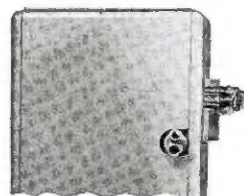


Your Heating Contractor will point out to you all the special and exclusive features of design that adapt the No. 7 Ideal Boiler so well to automatic firing. Among them are the newly designed gas passages, that force ALL the hot gases to scrub along the water-backed surface and transfer heat to the water. Ample combustion chamber. Air-tight joints. High base for easy burner installation. No special foundation required for stoker. Ample width in firepot for any standard make stoker. Well adapted to inconspicuous rear installation of oil burner as well as front installation.

ALL YEAR 'ROUND HOT WATER

Provision is made on No. 7 automatically fired boilers for a built-in water heater that will supply ample hot

water all year 'round, summer and winter, at little cost and no caretaking attention.



View of No. 7 Boiler showing built-in Water Heater at side and built-in Low Water Control at rear.

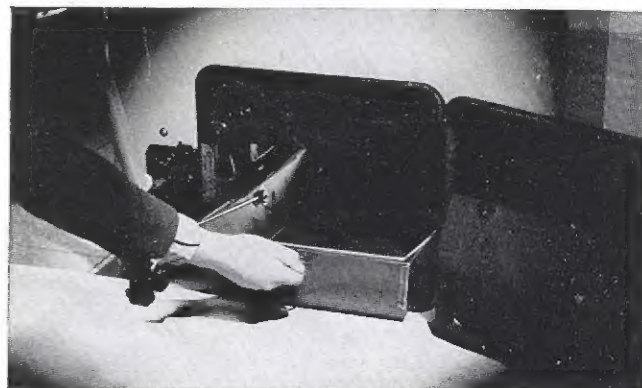
LOW WATER CONTROL

At slight extra cost a built-in No. 74 McDonnell-Miller Low Water cut-off can be added which automatically stops the burner if the water level for any reason falls too low, a protection that is both necessary and desirable.

If you should wish at any time to change your No. 7 to automatic gas-firing, our American Gas Products division has a new Rectangular Conversion Burner which fits the boiler perfectly.

LIFT OUT THE ASHES IN THIS SPECIAL PAN!

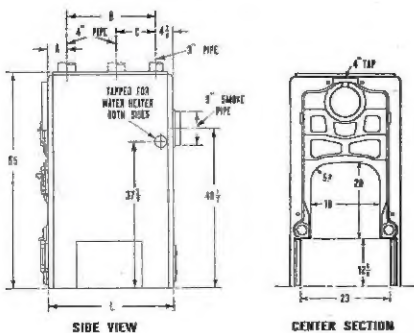
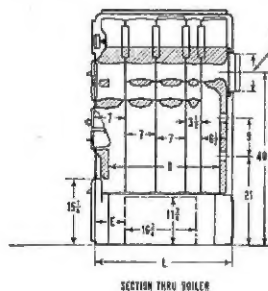
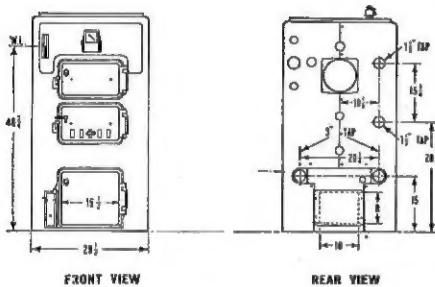
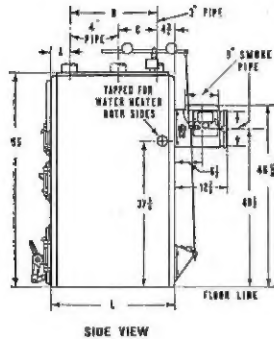
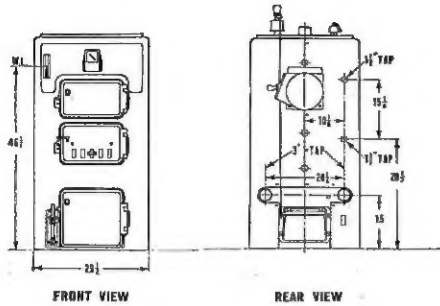
Yes. You can stop playing ashman! No more dusty shoveling or rolling ashcans up the cellar stairs. We've designed the No. 7 Ideal Boiler Ashpan especially for you who have hand-fired boilers—and it costs so little extra you'll certainly want one added. When it's time to take up ashes, just draw out the painful from the ashpit. Carry it by its convenient lift handle to an outdoor barrel—and the job is done. No dust. No ashes under foot. You save yourself a disagreeable job and your basement will stay much cleaner. The ashpan is supplied only for sizes S or W-711 to S or W-727, and cannot be added to No. 7 Boilers already installed.



RATINGS • DIMENSIONS • ASSEMBLAGE

No. 7 IDEAL BOILER • COAL • HAND-FIRED

DIMENSIONS AND ASSEMBLAGE



No. of Boiler		Length "L" Inches	Dimensions, Inches, for Locating Flow Tappings			Outlets No. and Size	Inlets No. and Size	ASSEMBLAGE
Steam	Water		A	B	C			
S-711	W-711	18 1/4	10 3/4	6 1/2	10	1-3"	2-3"	F-NC-BX
S-715	W-715	21 1/4	10 3/4	6 1/2	10	1-3", 1-4"	2-3"	F-CX-BX
S-719	W-719	25 1/4	10 3/4	10	10	1-3", 1-4"	2-3"	F-CX-NC-BX
S-723	W-723	28 1/4	10 3/4	13 1/2	10	1-3", 1-4"	2-3"	F-CX-C-BX
S-727	W-727	32 1/4	17 1/4	10	10	1-3", 1-4"	2-3"	F-C-CX-NC-BX
*S-731	*W-731	35 1/4	17 1/4	13 1/2	10	1-3", 1-4"	2-3"	F-C-CX-C-BX
*S-735	*W-735	39 1/4	10 3/4	24	10	1-3", 2-4"	2-3"	F-CX-C-CX-NC-BX
*S-739	*W-739	42 1/4	10 3/4	27 1/2	13 1/2	1-3", 2-4"	2-3"	F-CX-C-CX-C-BX

F-7" Front Section C-7" Center Section CX-7" Center Connecting Section

NC-3 1/2" Center Section BX-6 1/2" Back Connecting Section

*Ash Pan cannot be furnished for these sizes

RATINGS AND DATA

No. of Boiler		Maximum Output Sq. Ft. EDR		Installed Radiation Sq. Ft. EDR		Grate Area Sq. Ft.	Fuel Capacity lbs.	Available Fuel lbs.	Chimney	
Steam	Water	Steam	Water	Steam	Water				Size	Ht.
S-711	W-711	500	800	225	360	1.68	112	84	8" x 8"	30'
S-715	W-715	670	1070	300	480	2.15	150	114	8" x 8"	30'
S-719	W-719	840	1340	375	600	2.62	188	144	8" x 8"	35'
S-723	W-723	1010	1610	450	720	3.09	226	174	8" x 12"	35'
S-727	W-727	1180	1880	525	840	3.56	264	204	8" x 12"	35'
S-731	W-731	1350	2150	600	960	4.03	302	234	8" x 12"	35'
S-735	W-735	1520	2420	675	1080	4.50	340	264	12" x 12"	35'
S-739	W-739	1690	2690	750	1200	4.97	378	294	12" x 12"	40'

Based on anthracite of 12,500 BTU/lb.

Installed radiation capacities are based on net installed radiation and on the presence of a quantity of net installed radiation sufficient for the requirements of the building. Nothing need be added for normal piping and pick-up.

When a domestic water heater is connected to the boiler add one sq. ft. per gal. of tank capacity to installed radiation on steam boilers and two sq. ft. per gal. of tank capacity on water boilers before selecting boiler size.

No. 7 IDEAL BOILER FOR AUTOMATIC COAL FIRING

DIMENSIONS AND ASSEMBLAGE

No. of Boiler		"L" Length Inches	"A" Inches	"B" Inches	"C" Inches	"D" Inches	"E" Inches	Outlets No. and Size	Inlets No. and Size	Assemblage
Steam	Water									
SC-919	WC-919	25½	10½	10	-----	18 7/16	3½	1-3", 1-4"	2-3"	F-CX-NC-BX
SC-923	WC-923	28½	10½	13½	-----	21 15/16	3½	1-3", 1-4"	2-3"	F-CX-C-BX
SC-927	WC-927	32½	17½	10	-----	25 7/16	7½	1-3", 1-4"	2-3"	F-C-CX-NC-BX
SC-931	WC-931	35½	17½	13½	-----	28 15/16	7½	1-3", 1-4"	2-3"	F-C-CX-C-BX
SC-935	WC-935	39½	10½	24	10	32 7/16	10½	1-3", 2-4"	2-3"	F-CX-C-CX-NC-BX
SC-939	WC-939	42½	10½	27½	13½	35 15/16	10½	1-3", 2-4"	2-3"	F-CX-C-CX-C-BX

F-7" Front Section; C-7" Center Section; CX-7" Center Connecting Section; NC-3 1/2" Center Section; BX-6 1/2" Back Connecting Section.

*The boiler can be assembled so that the opening for stoker is either right or left hand. Upon request, it can be provided on both sides.

RATINGS AND DATA

No. of Boiler		Max. Output Sq. Ft. EDR		Installed Rad. Sq. Ft. EDR		Coal Con- sumption lbs./hr.	Fire Box Dimensions		Heating Surface Sq. Ft.	Distance from fl. to Crown Sheet of Boiler	Ht. of Base	Chimney	
Steam	Water	Steam	Water	Steam	Water		Width	Length				Size	Ht.
SC-919	WC-919	500	800	375	600	17.0	18"	18 7/16"	31.5	32 1/4	12 1/4	8" x 8"	30'
SC-923	WC-923	600	960	450	720	20.0	18"	21 15/16"	35.7	32 1/4	12 1/4	8" x 8"	30'
SC-927	WC-927	700	1120	525	840	22.0	18"	25 7/16"	40.9	32 1/4	12 1/4	8" x 12"	30'
SC-931	WC-931	800	1280	600	960	25.0	18"	28 15/16"	45.1	32 1/4	12 1/4	8" x 12"	30'
SC-935	WC-935	900	1440	675	1080	27.0	18"	32 7/16"	50.3	32 1/4	12 1/4	8" x 12"	35'
SC-939	WC-939	1000	1600	750	1200	30.0	18"	35 15/16"	54.5	32 1/4	12 1/4	8" x 12"	35'

§Based on anthracite of 12,500 BTU/lb

The installed radiation figures shown for No. 7 Ideal Boiler for automatic firing are based on a maximum allowance of 33 1/3% for piping and pick-up. Selection of the proper size boiler should be made accordingly.

Installed radiation capacities shown for all No. 7 Ideal Boilers are based on actual installed radiation and on the presence of a quantity of actual installed radiation sufficient for the requirements of the building. Nothing need be added for normal piping and pick-up.

When a domestic water heater is connected to the boiler add one sq. ft. per gal. of tank capacity to installed radiation on steam boilers and two sq. ft. per gal. of tank capacity on water boilers before selecting boiler size.

When a tankless water heater is connected to the boiler add 50 sq. ft. steam radiation per bathroom or 80 sq. ft. water radiation per bathroom to installed radiation before selecting boiler size.

RATINGS • DIMENSIONS • ASSEMBLAGE

No. 7 IDEAL BOILER FOR OIL

DIMENSIONS AND ASSEMBLAGE

No. of Boiler		"L" Length Inches	"A" Inches	"B" Inches	"C" Inches	"D" Inches	Outlets No. and Size	Inlets No. and Size	Assemblage
Steam	Water								
S-715-0	W-715-0	21½	10½	6½	.....	14 15/16	1-3", 1-4"	2-3"	F-CX-BX
S-719-0	W-719-0	25½	10½	10	.....	18 7/16	1-3", 1-4"	2-3"	F-CX-NC-BX
S-723-0	W-723-0	28½	10½	13½	.....	21 15/16	1-3", 1-4"	2-3"	F-CX-C-BX
S-727-0	W-727-0	32½	17½	10	.....	25 7/16	1-3", 1-4"	2-3"	F-C-CX-NC-BX
S-731-0	W-731-0	35½	17½	13½	.....	28 15/16	1-3", 1-4"	2-3"	F-C-CX-C-BX
S-735-0	W-735-0	39½	10½	24	10	32 7/16	1-3", 2-4"	2-3"	F-CX-C-CX-NC-BX
S-739-0	W-739-0	42½	10½	27½	13½	35 15/16	1-3", 2-4"	2-3"	F-CX-C-CX-C-BX

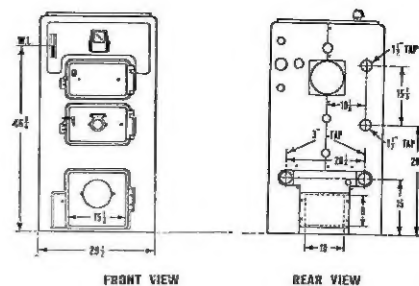
F-7" Front Section C-7" Center Section CX-7" Center Connecting Section
NC-3½" Center Section BX-6½" Back Connecting Section

RATINGS AND DATA

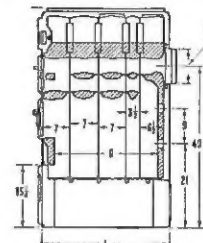
No. of Boiler		Max. Output Sq. Ft. EDR		Installed Rad Sq. Ft. EDR†		Fire Box Dimensions		Heating Surface	Recommended Oil Input‡		Chimney	
Steam	Water	Steam	Water	Steam	Water	Width	Length	Sq. Ft.	Lbs./hr.	Gals./hr.	Size	Ht.
S-715-0	W-715-0	460	735	320	515	18"	14 15/16"	26.3	8.0	1.1	8"x 8"	30'
S-719-0	W-719-0	545	870	380	610	18"	18 7/16"	31.5	9.5	1.3	8"x 8"	30'
S-723-0	W-723-0	630	1005	440	705	18"	21 15/16"	35.7	10.5	1.5	8"x 8"	30'
S-727-0	W-727-0	715	1140	500	800	18"	25 7/16"	40.9	12.0	1.7	8"x 12"	30'
S-731-0	W-731-0	800	1275	560	895	18"	28 15/16"	45.1	13.5	1.9	8"x 12"	30'
S-735-0	W-735-0	885	1410	620	990	18"	32 7/16"	50.3	14.5	2.1	8"x 12"	35'
S-739-0	W-739-0	970	1545	680	1085	18"	35 15/16"	54.5	16.0	2.3	8"x 12"	35'

†Transmission rate of 4250 B.t.u.

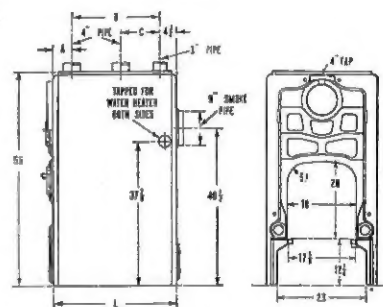
‡Based on oil of 19,700 B.t.u./lb.



FRONT VIEW REAR VIEW



SECTION THRU BOILER



SIDE VIEW

CENTER SECTION

No. 7 IDEAL BOILER FOR GAS

DIMENSIONS AND ASSEMBLAGE

No. of Boiler		"L" Length Inches	"A" Inches	"B" Inches	"C" Inches	"D" Inches	Outlets No. and Size	Inlets No. and Size	Assemblage
Steam	Water								
S-715-0	W-715-0	21½	10½	6½	.....	14 15/16	1-3", 1-4"	2-3"	F-CX-BX
S-719-0	W-719-0	25½	10½	10	.....	18 7/16	1-3", 1-4"	2-3"	F-CX-NC-BX
S-723-0	W-723-0	28½	10½	13½	.....	21 15/16	1-3", 1-4"	2-3"	F-CX-C-BX
S-727-0	W-727-0	32½	17½	10	.....	25 7/16	1-3", 1-4"	2-3"	F-C-CX-NC-BX
S-731-0	W-731-0	35½	17½	13½	.....	28 15/16	1-3", 1-4"	2-3"	F-C-CX-C-BX
S-735-0	W-735-0	39½	10½	24	10	32 7/16	1-3", 2-4"	2-3"	F-CX-C-CX-NC-BX
S-739-0	W-739-0	42½	10½	27½	13½	35 15/16	1-3", 2-4"	2-3"	F-CX-C-CX-C-BX

F-7" Front Section; C-7" Center Section; CX-7" Center Connecting Section; NC-3½" Center Section; BX-6½" Back Connecting Section.

RATINGS AND DATA

No. of Boiler		Max. Output Sq. Ft. EDR		Installed Rad. Sq. Ft. EDR†		Fire Box Dimensions		Heating Surface	Chimney	
Steam	Water	Steam	Water	Steam	Water	Width	Length	Sq. Ft.	Size	Ht.
S-715-0	W-715-0	460	735	320	515	18"	14 15/16"	26.3	8"x 8"	30'
S-719-0	W-719-0	545	870	380	610	18"	18 7/16"	31.5	8"x 8"	30'
S-723-0	W-723-0	630	1005	440	705	18"	21 15/16"	35.7	8"x 8"	30'
S-727-0	W-727-0	715	1140	500	800	18"	25 7/16"	40.9	8"x 12"	30'
S-731-0	W-731-0	800	1275	560	895	18"	28 15/16"	45.1	8"x 12"	30'
S-735-0	W-735-0	885	1410	620	990	18"	32 7/16"	50.3	8"x 12"	35'
S-739-0	W-739-0	970	1545	680	1085	18"	35 15/16"	54.5	8"x 12"	35'

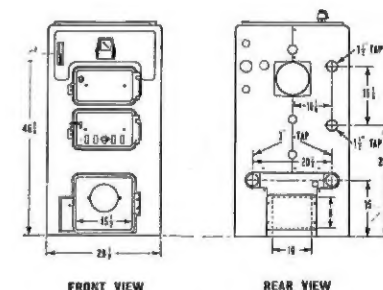
†Transmission rate of 4250 BTU.

The installed radiation figures shown for No. 7 Ideal Boiler for OIL and GAS are based on a maximum allowance of 20% for piping and 20% for pick-up. Selection of the proper size boiler should be made accordingly.

Installed radiation capacities shown for all No. 7 Ideal Boilers are based on actual installed radiation and on the presence of a quantity of actual installed radiation sufficient for the requirements of the building. Nothing need be added for normal piping and pick-up.

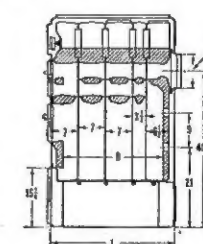
When a domestic water heater is connected to the boiler add one sq. ft. per gal. of tank capacity to installed radiation on steam boilers and two sq. ft. per gal. of tank capacity on water boilers before selecting boiler size.

When a tankless water heater is connected to the boiler add 50 sq. ft. steam radiation per bathroom or 80 sq. ft. water radiation per bathroom to installed radiation before selecting boiler size.

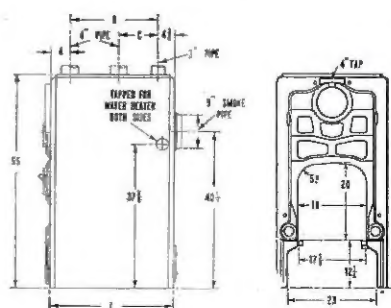


FRONT VIEW

REAR VIEW



SECTION THRU BOILER

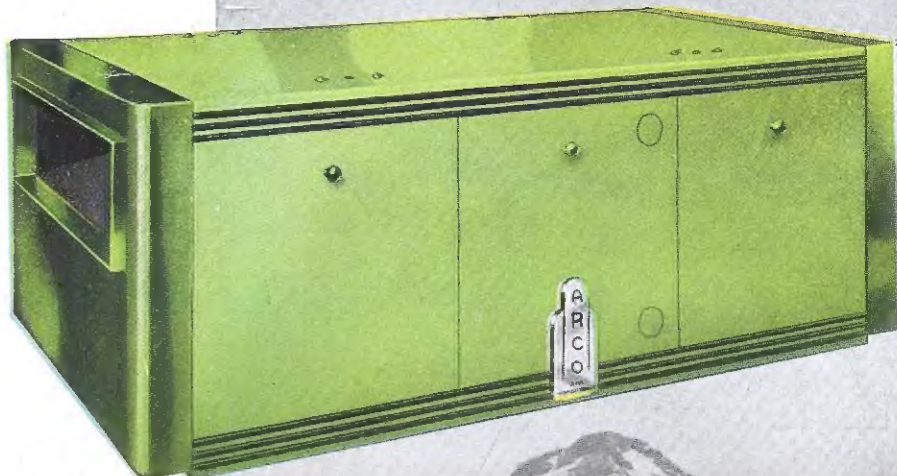


SIDE VIEW

CENTER SECTION



ENJOY CLEAN, CONDITIONED AIR WITH YOUR RADIANT WARMTH!



ARCO AIR CONDITIONER

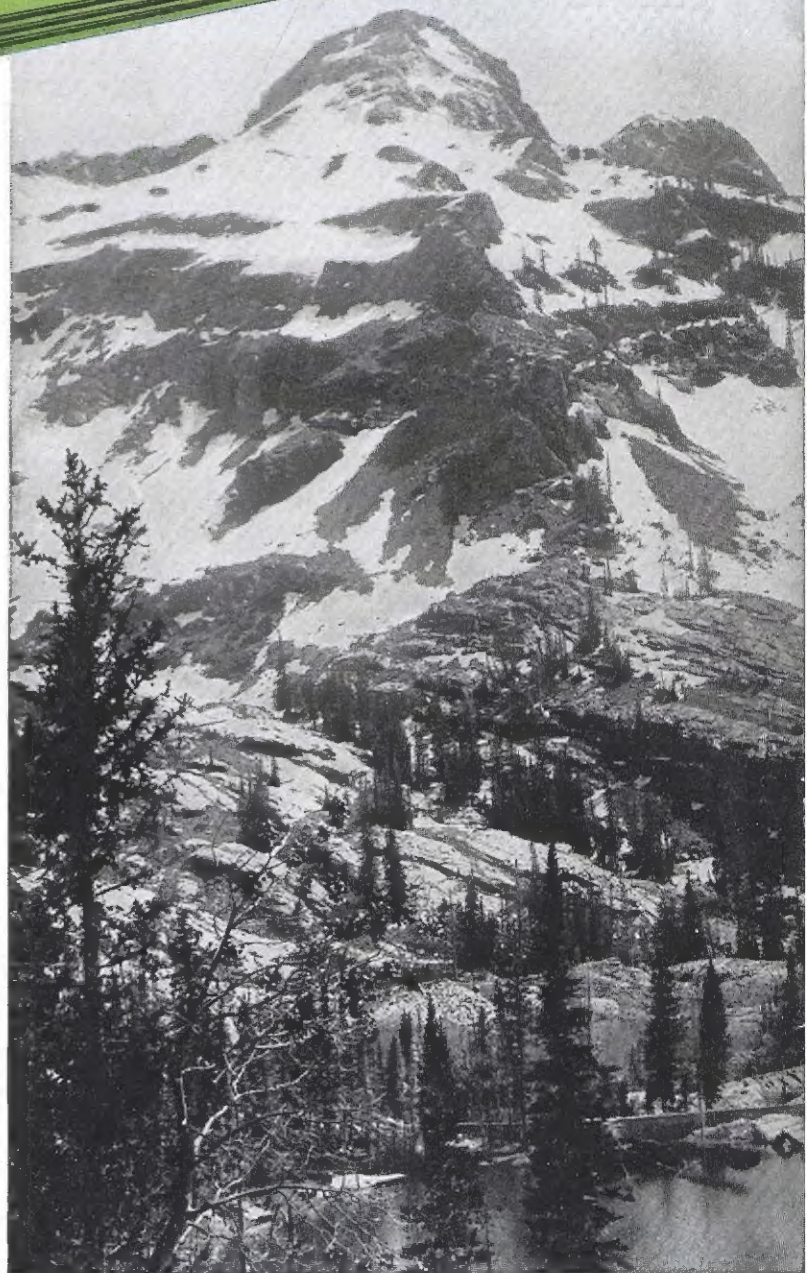
It is a simple matter to add to your No. 7 Boiler at any time an Arco Air Conditioner. This compact basement machine brings to your winter-bound home air that is delightfully clean and fresh, properly humidified and circulated all through your rooms. The Conditioner replaces the usual stuffy indoor winter "climate" with the wonderful freshness of spring. Easily installed, with minimum ductwork and no structural changes.

ALL THE HOT WATER YOU WANT

Even if your boiler is hand-fired you can have loads of hot water for bathing, housework, laundry, with No. 7. For very little more than the cost of the boiler alone you can have a domestic water heater connected to the boiler. In summer you'll want hot water too, for clean clothes, refreshing baths and easy hot weather work. No. 7 has connections for providing it.

CONVENIENT TIME PAYMENTS

The No. 7 Ideal Boiler and complete American Radiator Conditioning Systems can be installed in existing homes on the convenient time payment plan of the Heating and Plumbing Finance Corporation. No down payment. No red tape. 3 years to pay. See your Heating Contractor about this liberal deferred payment plan. He will handle all the details of the transaction.



AMERICAN RADIATOR COMPANY
DIVISION OF **AMERICAN RADIATOR & STANDARD SANITARY CORPORATION**

40 WEST 40TH STREET • NEW YORK, N. Y.

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